Plant Science, 63 (1989) 257 – 259
Elsevier Scientific Publishers Ireland Ltd.

SUBJECT INDEX

Volume 63 (1989)

Acclimatization, *Simmondsia chinensis*, cloned plants, shoot proliferation, tap root-like system, transplantation, 199
Acidic isoperoxidases, *Lupinus albus*, basic isoperoxidases, auxin catabolism, cytosol, 31
Agarose culture, *Lolium perenne*, suspension culture, protoplasts, somatic embryogenesis, 167
Agrobacterium, agroinfection, transformation, wheat, tissue culture, 237
Agrobacterium rhizogenes, *Agrobacterium tumefaciens*, wheat, agroinfection, wheat dwarf virus, 247
Agrobacterium tumefaciens, *Agrobacterium rhizogenes*, wheat, agroinfection, wheat dwarf virus, 247
Agroinfection, *Agrobacterium*, transformation, wheat, tissue culture, 237
Agroinfection, *Agrobacterium tumefaciens*, Agrobacterium rhizogenes, wheat, wheat dwarf virus, 247
Amino acids, *Zea mays* L, maize, cell culture, protein synthesis, zein, 105
Auxin catabolism, *Lupinus albus*, acidic isoperoxidases, basic isoperoxidases, cytosol, 31

Basic isoperoxidases, *Lupinus albus*, acidic isoperoxidases, auxin catabolism, cytosol, 31
Bean, pathogenesis-related, chitinase, 1,3-β-glucanase, 121
Bloat safe forage, *Onobrychis viciifolia*, protoplasts, plant regeneration, 87

Cladina, cell wall, photobiont, urease, usnic acid, 15
Capsicum annuum, in vitro culture, cotyledons, cell cycle activation, 217
Carbon partitioning, phytochrome, light quality, sucrose phosphate synthetase, invertase, radish (*Raphanus sativus*), 25
Catharanthus roseus, inositol phosphates, phosphatidylinositol cycle, growth cycle, suspension cultured plant cells, *Nicotiana tabacum*, 159
Cauliflower mosaic virus 35S promoter, β-glucuronidase, patatin promoter, potato, transgenic plants, 79
Cell culture, *Zea mays* L, maize, protein synthesis, amino acids, zein, 105
Cell cycle activation, in vitro culture, *Capsicum annuum*, cotyledons, 217
Cell suspension, rice (*Oryza sativa* L.), protoplast isolation and culture, plant regeneration, 187
Cell wall, *Cladina*, photobiont, urease, usnic acid, 15
Chitinase, pathogenesis-related, 1,3-β-glucanase, bean, 121
Cloned plants, *Simmondsia chinensis*, shoot proliferation, tap root-like system, acclimatization, transplantation, 199
Cotyledons, in vitro culture, *Capsicum annuum*, cell cycle activation, 217
Cucumis sativus, germination, respiration, fermentation, isocitrate lyase activity, 7
Cytosol, *Lupinus albus*, acidic isoperoxidases, basic isoperoxidases, auxin catabolism, 31

Differentiation, gene amplification, morphogenesis, *Oxalis*, 177
Diphenylether herbicides, photosystem II photochemistry, inhibitor constant, spinach chloroplasts, 1
DNA supercoiling, germination, nucleoid sedimentation, transcriptional activity, 59

Enzyme overproduction, flow cytometry, glutamine synthetase, herbicide tolerance, *Nicotiana tabacum*, 227

Fatty acid oxidation, gene expression, lipid metabolism, *Glycine max*, 151
Fermentation, *Cucumis sativus*, germination, respiration, isocitrate lyase activity, 7
Flow cytometry, enzyme overproduction, glutamine synthetase, herbicide tolerance, *Nicotiana tabacum*, 227

Gelling agent, hybrid larch, *Larix* × *eurolepis*, immature zygotic embryos, somatic embryogenesis, maturation, 95
Gene amplification, differentiation, morphogenesis, *Oxalis*, 177
Gene expression, fatty acid oxidation, lipid metabolism, *Glycine max*, 151
Gene regulation, transgenic plants, phytohemagglutinin, phaseolin, luciferase, *Phaseolus vulgaris*, 47
Germination, *Cucumis sativus*, respiration, fermentation, isocitrate lyase activity, 7
Germination, DNA supercoiling, nucleoid sedimentation, transcriptional activity, 59
1,3-β-Glucanase, pathogenesis-related, chitinase, bean, 121
β-Glucuronidase, cauliflower mosaic virus 35*S* promoter, patatin promoter, potato, transgenic plants, 79
Glutamine synthetase, enzyme overproduction, flow cytometry, herbicide tolerance, *Nicotiana tabacum*, 227
Glycine max, fatty acid oxidation, gene expression, lipid metabolism, 151
Growth cycle, inositol phosphates, phosphatidylinositol cycle, suspension cultured plant cells, *Catharanthus roseus*, *Nicotiana tabacum*, 159

Herbicide tolerance, enzyme overproduction, flow cytometry, glutamine synthetase, *Nicotiana tabacum*, 227
Hybrid larch, *Larix* × *eurolepis*, immature zygotic embryos, somatic embryogenesis, gelling agent, maturation, 95
Hypersensitive reaction, intercellular fluid, *Nicotiana tabacum*, pathogenesis-related proteins, tobacco mosaic virus, 131
Hypersensitive reaction, *Nicotiana tabacum*, pathogenesis-related proteins, protease, tobacco mosaic virus, 141

Immature zygotic embryos, hybrid larch, *Larix* × *eurolepis*, somatic embryogenesis, gelling agent, maturation, 95
Inhibitor constant, diphenylether herbicides, photosystem II photochemistry, spinach chloroplasts, 1
Inositol phosphates, phosphatidylinositol cycle, growth cycle, suspension cultured plant cells, *Catharanthus roseus*, *Nicotiana tabacum*, 159
Intercellular fluid, hypersensitive reaction, *Nicotiana tabacum*, pathogenesis-related proteins, tobacco mosaic virus, 131
Invertase, carbon partitioning, phytochrome, light quality, sucrose phosphate synthetase, radish (*Raphanus sativus*), 25
In vitro culture, *Capsicum annuum*, cotyledons, cell cycle activation, 217
Iodoacetate, *Nicotiana*, protoplast-fusion, somatic-hybrids, metabolic-inhibition, rhodamine, 67
Isocitrate lyase activity, *Cucumis sativus*, germination, respiration, fermentation, 7

Larix × *eurolepis*, hybrid larch, immature zygotic embryos, somatic embryogenesis, gelling agent, maturation, 95
Light quality, carbon partitioning, phytochrome, sucrose phosphate synthetase, invertase, radish (*Raphanus sativus*), 25
Lipid metabolism, fatty acid oxidation, gene expression, *Glycine max*, 151
Lolium perenne, suspension culture, protoplasts, agarose culture, somatic embryogenesis, 167
Luciferase, gene regulation, transgenic plants, phytohemagglutinin, phaseolin, *Phaseolus vulgaris*, 47
Lupinus albus, acidic isoperoxidases, basic isoperoxidases, auxin catabolism, cytosol, 31

Maize, *Zea mays* L, cell culture, protein synthesis, amino acids, zein, 105
Maturation, hybrid larch, *Larix* × *eurolepis*, immature zygotic embryos, somatic embryogenesis, gelling agent, 95
Metabolic-inhibition, *Nicotiana*, protoplast-fusion, somatic-hybrids, iodoacetate, rhodamine, 67
Morphogenesis, differentiation, gene amplification, *Oxalis*, 177

Nicotiana, protoplast-fusion, somatic-hybrids, metabolic-inhibition, iodoacetate, rhodamine, 67
Nicotiana tabacum, enzyme overproduction, flow cytometry, glutamine synthetase, herbicide tolerance, 227
Nicotiana tabacum, hypersensitive reaction, intercellular fluid, pathogenesis-related proteins, tobacco mosaic virus, 131
Nicotiana tabacum, hypersensitive reaction, pathogenesis-related proteins, protease, tobacco mosaic virus, 141
Nicotiana tabacum, inositol phosphates, phosphatidylinositol cycle, growth cycle, suspension cultured plant cells, *Catharanthus roseus*, 159
Nucleoid sedimentation, DNA supercoiling, germination, transcriptional activity, 59

Onobrychis viciifolia, bloat safe forage, protoplasts, plant regeneration, 87
Oxalis, differentiation, gene amplification, morphogenesis, 177

Patatin promoter, cauliflower mosaic virus 35S promoter, β-glucuronidase, potato, transgenic plants, 79
Pathogenesis-related proteins, hypersensitive reaction, *Nicotiana tabacum*, protease, tobacco mosaic virus, 141
Pathogenesis-related, chitinase, 1,3-β-glucanase, bean, 121
Pathogenesis-related proteins, hypersensitive reaction, intercellular fluid, *Nicotiana tabacum*, tobacco mosaic virus, 131
Phaseolin, gene regulation, transgenic plants, phytohemagglutinin, luciferase, *Phaseolus vulgaris*, 47
Phaseolus angularis Wight, protoplast culture, plantlet regeneration, 209
Phaseolus vulgaris, gene regulation, transgenic plants, phytohemagglutinin, phaseolin, luciferase, 47
Phosphatidylinositol cycle, inositol phosphates, growth cycle, suspension cultured plant cells, *Catharanthus roseus*, *Nicotiana tabacum*, 159
Photobiont, *Cladina*, cell wall, urease, usnic acid, 15
Photosystem II photochemistry, diphenylether herbicides, inhibitor constant, spinach chloroplasts, 1
Phytochrome, carbon partitioning, light quality, sucrose phosphate synthetase, invertase, radish (*Raphanus sativus*), 25
Phytohemagglutinin, gene regulation, transgenic plants, phaseolin, luciferase, *Phaseolus vulgaris*, 47
Plantlet regeneration, *Phaseolus angularis* Wight, protoplast culture, 209
Plant regeneration, *Onobrychis viciifolia*, bloat safe forage, protoplasts, 87
Plant regeneration, rice (*Oryza sativa* L.), cell suspension, protoplast isolation and culture, 187
Polyamines, RNase, protein synthesis, wounding, 39
Potato, cauliflower mosaic virus 35S promoter, β-glucuronidase, patatin promoter, transgenic plants, 79
Protease, hypersensitive reaction, *Nicotiana tabacum*, pathogenesis-related proteins, tobacco mosaic virus, 141

Protein synthesis, RNase, polyamines, wounding, 39
Protein synthesis, *Zea mays* L, maize, cell culture, amino acids, zein, 105
Protoplast-fusion, *Nicotiana*, somatic-hybrids, metabolic-inhibition, iodoacetate, rhodamine, 67
Protoplasts, *Lolium perenne*, suspension culture, agarose culture, somatic embryogenesis, 167
Protoplasts, *Onobrychis viciifolia*, bloat safe forage, plant regeneration, 87
Protoplast culture, *Phaseolus angularis* Wight, plantlet regeneration, 209
Protoplast isolation and culture, rice (*Oryza sativa* L.), cell suspension, plant regeneration, 187

Radish (*Raphanus sativus*), carbon partitioning, phytochrome, light quality, sucrose phosphate synthetase, invertase, 25
Respiration, *Cucumis sativus*, germination, fermentation, isocitrate lyase activity, 7
Rhodamine, *Nicotiana*, protoplast-fusion, somatic-hybrids, metabolic-inhibition, iodoacetate, 67
Rice (*Oryza sativa* L.), cell suspension, protoplast isolation and culture, plant regeneration, 187
RNase, polyamines, protein synthesis, wounding, 39

Shoot proliferation, *Simmondsia chinensis*, cloned plants, tap root-like system, acclimatization, transplantation, 199
Simmondsia chinensis, cloned plants, shoot proliferation, tap root-like system, acclimatization, transplantation, 199
Somatic embryogenesis, hybrid larch, *Larix* × *eurolepis*, immature zygotic embryos, gelling agent, maturation, 95
Somatic embryogenesis, *Lolium perenne*, suspension culture, protoplasts, agarose culture, 167
Somatic-hybrids, *Nicotiana*, protoplast-fusion, metabolic-inhibition, iodoacetate, rhodamine, 67
Spinach chloroplasts, diphenylether herbicides, photosystem II photochemistry, inhibitor constant, 1
Sucrose phosphate synthetase, carbon partitioning, phytochrome, light quality, invertase, radish (*Raphanus* (*sativus*), 25
Suspension culture, *Lolium perenne*, protoplasts, agarose culture, somatic embryogenesis, 167
Suspension cultured plant cells, inositol phosphates, phosphatidylinositol cycle, growth cycle, *Catharanthus roseus*, *Nicotiana tabacum*, 159

Tap root-like system, *Simmondsia chinensis*, cloned plants, shoot proliferation, acclimatization, transplantation, 199
Tissue culture, *Agrobacterium*, agroinfection, transformation, wheat, 237
Tobacco mosaic virus, hypersensitive reaction, intercellular fluid, *Nicotiana tabacum*, pathogenesis-related proteins, 131
Tobacco mosaic virus, hypersensitive reaction, *Nicotiana tabacum*, pathogenesis-related proteins, protease, 141
Transcriptional activity, DNA supercoiling, germination, nucleoid sedimentation, 59
Transformation, *Agrobacterium*, agroinfection, wheat, tissue culture, 237
Transgenic plants, cauliflower mosaic virus 35S promoter, β-glucuronidase, patatin promoter, potato, 79
Transgenic plants, gene regulation, phytohemagglutinin, phaseolin, luciferase, *Phaseolus vulgaris*, 47
Transplantation, *Simmondsia chinensis*, cloned plants, shoot proliferation, tap root-like system, acclimatization, 199

Urease, *Cladina*, cell wall, photobiont, usnic acid, 15
Usnic acid, *Cladina*, cell wall, photobiont, urease, 15

Wheat, *Agrobacterium*, agroinfection, transformation, tissue culture, 237
Wheat, *Agrobacterium tumefaciens*, *Agrobacterium rhizogenes*, agroinfection, wheat dwarf virus, 247
Wheat dwarf virus, *Agrobacterium tumefaciens*, *Agrobacterium rhizogenes*, wheat, agroinfection, 247
Wounding, RNase, polyamines, protein synthesis, 39

Zea mays L, maize, cell culture, protein synthesis, amino acids, zein, 105
Zein, *Zea mays* L, maize, cell culture, protein synthesis, amino acids, 105

Plant Science, 63 (1989) 261 – 262
Elsevier Scientific Publishers Ireland Ltd.

AUTHOR INDEX

Volume 63 (1989)

Altschuler, M. 151
Arcioni, S. 87
Aviv, D. 67
Awade, A. 121

Barceló, A.R. 31
Bhardwaj, R. 1
Botha, F.C. 7
Böttcher, U.F. 67
Brown, M.M. 237
Burkard, G. 121

Chaturvedi, H.C. 199
Chen, D.F. 237
Chiavazza, P. 217
Chrispeels, M.J. 47
Collins, G.B. 151
Creemers-Molenaar, J. 167

Dale, P.J. 237, 247
Damiani, F. 87
De Donato, M. 217
de Tapia, M. 121
Didierjean, L. 121

Escandón, A.S. 177

Flavell, R.B. 237
Franzoni, L. 39

Galun, E. 67
Ge, K. 209
Gerritsen, Y.A.M. 131, 141
Gilmour, D.M. 237
Grayburn, W.S. 151
Gunn, H.V. 237

Hahne, G. 177
Heim, S. 159
Hildebrand, D.F. 151
Hiyoshi, T. 227
Hopp, H.E. 177
Huang, P. 209
Hunt, D.C. 47

Ishida, Y. 227
Isola, M.C. 39

Jenes, B. 187

Keiller, D. 25
Kemp, J.M. 237, 247
Klimaszewska, K. 95
Kumashiro, T. 227

Lee, N. 209
Legaz, M.E. 15
Lewis, D.M. 237
Lin, J. 47
Loeffen, J.P.M. 167
Lyznik, L.A. 105

Maheshwari, V. 1
Marks, M.S. 237, 247
May, G. 79
Mignery, G. 79
Mirkova, V. 59
Mullineaux, P.M. 237
Muñoz, R. 31

Nagar, S. 1
Nie, Z. 209

Panei, E. 217
Park, W. 79
Pauk, J. 187
Perucco, E. 217
Pezzotti, M. 87
Pupilli, F. 87

Rabie, A.C. 7
Riggs, C.D. 47

Sabater, F. 31
Sano, M. 227
Sharma, D. 1
Sharma, M. 199
Small, J.G.C. 7
Smith, H. 25
Stoilov, L. 59

Testa, D. 209
Tsai, C.Y. 105

van der Valk, P. 167
van Loon, L.C. 131, 141
Vicente, C. 15

Wagner, K.G. 159

Wang, Y. 209
Wenzler, H. 79
Woolston, C.J. 237, 247

Yang, J. 209
Yuan, X. 209

Zaal, M.A.C.M. 167
Zlatanova, J. 59